

### AMENDMENTS

#### In the Claims:

1. (Currently Amended) A surgical instrument for grinding the cotyloid cavity, comprising an instrument head having a rotation axis and with grinder thereon, a holder for holding the instrument head in a working position, a drive device, a drive shaft which connects the grinder to the drive device and is located at an angle with respect to the rotation axis of the instrument head, and a support part arranged in the direction of the rotation axis and acting on the instrument head, wherein the support part comprises a femur attachment part arranged on a side of the instrument head facing away from the grinder, the femur attachment part determines a grinding direction, and the femur attachment part comprises a journal extending in the direction of the rotation axis of the instrument head.

2. (Previously Presented) The instrument as claimed in claim 1, wherein the holder comprises a shank located at an angle with respect to the rotation axis of the instrument head.

3. (Previously Presented) The instrument as claimed in claim 2, wherein the drive shaft is arranged in or on the shank.

4-7. (Canceled)

8. (Currently Amended) The instrument as claimed in ~~claim 7~~ one of claims 1 through 3, wherein the journal is formed by a grinder shaft.

9. (Previously Presented) The instrument as claimed in claim 8, further comprising a bushing for the journal formed by the grinder shaft which can be inserted into a bore in the femur.

10. (Withdrawn - Currently Amended) The instrument as claimed in one of claims 1 through ~~[[4]]~~ 3, wherein the angle between the rotation axis of the instrument head and the drive shaft or the shank is adjustable.

11. (Withdrawn - Currently Amended) The instrument as claimed in ~~claim 5~~ one of claims 1 through 3, further comprising a separate shank detachably connected to the instrument

head.

12. (Withdrawn - Currently Amended) The instrument as claimed in ~~claim 5~~ one of claims 1 through 3, further comprising a grinder advancer device for advancing the instrument head with support on the femur.

13. (Withdrawn) The instrument as claimed in claim 12, wherein the femur attachment part comprises a support on the femur, and wherein the instrument further comprises an extension mechanism arranged between the support and the instrument head.

14. (Currently Amended) The instrument as claimed in one of claims 1 through ~~[[4]]~~ 3, wherein the distance between the intersection point of the rotation axis of the instrument head and the axis of the shank or drive shaft, on the one hand, and the center point of the grinder, on the other hand, is not greater than the grinder diameter.

15. (Previously Presented) The instrument as claimed in claim 14, wherein the distance is not greater than half the grinder diameter.

16. (Currently Amended) The instrument as claimed in one of claims 1 through ~~[[4]]~~ 3, wherein the instrument has an outer dimension, measured in the direction of the grinder axis without including parts optionally to be accommodated in the femur and including the grinder, of not greater than 8 cm.

17-18. (Canceled)

19. (Withdrawn) The instrument as claimed in claim 8, wherein the angle between the rotation axis of the instrument head and the drive shaft or the shank is adjustable.

20. (Withdrawn) The instrument as claimed in claim 9, wherein the angle between the rotation axis of the instrument head and the drive shaft or the shank is adjustable.

21-22. (Canceled)

23. (Withdrawn) The instrument as claimed in claim 9, further comprising a separate shank detachably connected to the instrument head.

24-25. (Canceled)

26. (Withdrawn) The instrument as claimed in claim 9, further comprising a grinder advancer device for advancing the instrument head with support on the femur.

27. (Withdrawn) The instrument as claimed in claim 26, wherein the femur attachment part comprises a support on the femur, and wherein the instrument further comprises an extension mechanism arranged between the support and the instrument head.

28-29. (Canceled)

30. (Previously Presented) The instrument as claimed in claim 9, wherein the instrument has an outer dimension, measured in the direction of the grinder axis without including parts optionally to be accommodated in the femur and including the grinder, of not greater than 8 cm.